

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International publication date
8 March 2001 (08.03.2001)

PCT

(10) International publication number
WO 01/16403 A1

(51) International patent classification⁷: C25D 3/38
(21) International application number: PCT/EP00/08312
(22) International filing date: 25 August 2000 (25.08.2000)
(25) Language of filing: German
(26) Language of publication: German
(30) Data relating to the priority:
199 41 605.2 1 September 1999 (01.09.1999) DE

(71) Applicant (for all designated States except US): MERCK PATENT GMBH [DE/DE]; Frankfurter Strasse 250, 64293 Darmstadt (DE).

(72) Inventors; and

(75) Inventors/Applicants (US only): HU, Jung-Chih [-/-]; 101 Section 2 Kuang Fu Road, Hsinchu (TW). GAU, Wu-Chun [-/-]; 101 Section 2 Kuang Fu Road, Hsinchu (TW). CHANG, Ting-Chang [-/-]; 70 Lien-Hai Road, Kaohsing (TW). FENG, Ming-Shiann [-/-]; 100 Ta Hsueh Road, Hsinchu (TW). CHENG, Chun-Lin [-/-]; 10F, No. 25, Hwan Shi Road, Section 4, Lane 300, Jung Li Taur-Yuan (TW). LIN, You-Shin [-/-]; No. 94, Wen-Sheng Road, Su-Yuh, Yi-Lan (TW). LI, Ying-Hao [-/-]; 33 Ching Chien I Road, Kuan Yin Industrial Road, Taoyuan (TW). CHEN, Lih-Juann [-/-]; 101 Section 2 Kuang Fu Road, Hsinchu (TW).

(74) Joint Representative: MERCK PATENT GMBH;
Frankfurter Strasse 250, 64293 Darmstadt (DE).

(81) Designated states (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated states (regional): ARIPO Patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- With the International Search Report.
- Before expiry of the period provided for amending the claims, will be republished if such amendments are received.

For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.

As printed

WO 01/16403 A1

(54) Title: GALVANIZING SOLUTION FOR THE GALVANIC DEPOSITION OF COPPER

(54) Bezeichnung: GALVANISIERUNGSLÖSUNG FÜR DIE GALVANISCHE ABSCHIEDUNG VON KUPFER

(57) Abstract: The invention relates to a novel galvanizing solution for the galvanic deposition of copper. Hydroxylamine sulfate or hydroxylamine hydrochloride are utilized as addition reagents and added to the galvanizing solution during the galvanic deposition of copper which is used in the manufacture of semiconductors.

(57) Zusammenfassung: Die vorliegende Erfindung betrifft eine neue Galvanisierungslösung für die galvanische Abscheidung von Kupfer. Dabei werden Hydroxylaminsulfat und Hydroxylaminhydrochlorid als Additivreagentien verwendet und der bei der galvanischen Abscheidung von Kupfer in der Halbleiterproduktion verwendeten Galvanisierungslösung zugesetzt.